

# AAAAI Ask the Expert

## Asthma and scuba diving 10/10/2011

Q: Read the opinion on asthma and scuba diving from 10/2009. Have any changes to the recommendation been made since then? Thank you.

A: Thank you for your recent inquiry.

No, I have not seen anything since the statement to which you are referring. However, a fairly recent News and Notes from the Academy, written by Dr. David Lang, who has a personal interest in this area, noted that an Academy survey of this topic was going to be conducted. I have not seen anything published regarding this survey, but perhaps Dr. Lang has further knowledge in this regard. Since he has a special interest in this area, he may have seen a publication that I have missed.

For this reason I am going to ask Dr. Lang to respond to your inquiry. As soon as I hear from him, I will get back with you.

Thank you again for your inquiry.

Sincerely,  
Phil Lieberman, M.D.

We have received a response from Dr. David Lang. Thank you again for your inquiry and we hope this response is helpful to you.

Sincerely,  
Phil Lieberman, M.D.

Response from Dr. David Lang:

Thank you for raising this issue, which I became interested in by virtue of my being a certified diver and also encountering patients with asthma who (wish to) scuba dive.

As you know, there is a theoretical risk in asthmatics for increased complications from scuba diving -- including arterial gas embolism and barotrauma. Heightened risk for bronchospasm is also present in asthmatics when diving, because of: (a) exposure to cold ambient aquatic temperatures; (b) inspiring dry, compressed air; (c) physical exertion; (d) apprehension that may occur in inexperienced divers. Because of these risks, many believe that scuba diving is contraindicated in asthmatic persons. Despite the above theoretical concerns and published case reports that have described serious complications in divers with asthma, epidemiologic studies have not convincingly demonstrated greater risk for complication exists among asthmatics compared with non-asthmatics who dive. However, these surveys may suffer from a selection bias, such that more severe asthmatics who would likely be at greater risk were not included and for this reason no increased risk for complication was found.

Frank Twarog and I have served on the Scuba subcommittee of the AAAAI Sports Medicine committee. We proposed a survey that was recently carried out and has been submitted for presentation as an abstract for presentation at the 2012 AAAAI meeting. Our survey data confirm that an honest difference of opinion exists among AAAAI members and fellows as to whether scuba diving in asthmatic patients should be discouraged. Many Allergy / Immunology physicians do not routinely inquire about scuba diving when evaluating a patient with asthma. Complications from scuba diving in patients with asthma were described by AAAAI members.

Guidelines published in recent years have recommended that patients whose asthma is well controlled (i.e., free of asthma symptoms, whose spirometry is normal, and who have a negative exercise or bronchoprovocation (e.g., mannitol) challenge should be permitted to engage in scuba diving; however, I believe that while these criteria are reassuring we need more data to make evidence-based medical decisions. At this time, the decision for an asthmatic to proceed with scuba as a recreational activity should be made by the patient in concert with his/her asthma provider on an individualized basis, informing the patient of the potential for harm and associated theoretical risks and inviting the patient to voice his/her values and preferences.

We believe our recent survey serves to further highlight the need for methodologically sound case-control studies to assess whether risk for complication from scuba diving is truly elevated in individuals with asthma.

Best regards,  
David Lang, M.D.